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ABSTRACT

This master's thesis reports on a study of the frequency and modes of student responses that demonstrate musical learning in the elementary instrumental music class. Some advances must be made toward more definitive evaluation practices in elementary school instrumental music if instrumental programs are to be justified in terms of improved teaching procedures and valid content. Learning to play an instrument proceeds with greater effectiveness when the student periodically is provided with clear knowledge of progress made toward a goal. The success of the instrumental music program in a particular school depends to a large extent upon the ability of the teacher to evaluate student progress. This paper proposed an exploratory descriptive study that consisted of observation and documentation of behaviors in beginning instrumental music classes in public elementary schools in two Michigan cities. The study recorded the number of times in each class that a teacher elicited modes of student response that demonstrated musical learning. The study observed teacher presentation of musical problems and the resultant behaviors of the students. The study classified these modes of student response into eight basic categories: (1) description; (2) identification; (3) imitation; (4) discrimination; (5) association; (6) analyzation; (7) generalization; and (8) synthesis. To facilitate documentation of student responses the study developed an instrument that included each of the eight behaviors and their subdivisions. The study involved the nine observations of beginning band classes. Figures illustrate the findings of each of the observations. The study concluded that imitation, discrimination, and association were the principal behavior categories of the eight delineated in this study. This instrument is included in an appendix. (DK)

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ED 378 106

A SURVEY OF MODES OF STUDENT RESPONSE INDICATIVE OF MUSICAL LEARNING IN ELEMENTARY INSTRUMENTAL MUSIC

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Music (Music Education)
in The University of Michigan
August, 1981

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INTRODUCTION

In the lengthy history of music, evaluation has been important; it dates back at least to the Olympic games of ancient Greece.[1] It is essential that music teachers evaluate all types of learning -- appreciation, musical knowledge, musical understanding, listening skills, performance skills, attitudes, and habits. A good picture of where the student is and how he is progressing is fundamental to effective teaching and effective learning.

In order to understand evaluation processes, a definition of the term and statement of implications for music learning are in order. According to Thorndike and Hagen[2] evaluation involves appraising the extent to which educational objectives have been achieved. It is more inclusive than measurement; it utilizes informal and intuitive appraisal of student progress.

With respect to music, Colwell[3] defines evaluation as

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[1]Richard J. Colwell, The Evaluation of Music Teaching and Learning (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 6.

[2]Robert L. Thorndike and Elizabeth Hagen, Measurement and Evaluation in Psychology and Education, 3rd ed. (New York: John Wiley & Sons, Inc., 1969), p. 647.

[3]Colwell, The Evaluation of Music Teaching and Learning, pp. 21-22.

a circular process which involves four components: (1) planning and teaching musical experiences, (2) collecting data systematically, (3) processing and integrating the data, and (4) disseminating the results back into the teaching-learning situation. He contends that since evaluation yields much of what we know about music learning, it should lead to constructive action.

Evaluation is essential not only because it enables the teacher to appraise results in important facets of musical learning, but also because it provides valuable insights into the nature and needs of students, both as a group and as individuals. Thus, evaluation is related to (1) objectives and philosophy of the curriculum, (2) methodology and organization of experiences, and (3) the actual process of appraisal and its application.[4]

The evaluative process should be a prelude to the acquisition of new knowledge, a new attempt at comprehension or application, or a new analysis and synthesis. However, to be consistently successful, these actions must stem from continual, intelligent evaluation that is systematic as well as comprehensive. Frequent and carefully planned procedures will give the most accurate and complete appraisal of the teaching-learning situation.

In music, the need for frequent, organized evaluative procedures is particularly great. Such evaluation constitutes

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[4]Colwell, The Evaluation of Music Teaching and Learning, p. vii.

a positive form of guidance and can contribute substantially to the desire of the student to achieve worthy objectives in the field of music. Poorly conceived or executed evaluation is a disservice to the student.

With pressures to show evidence of teaching and learning in the public schools, evaluation becomes a source of authority and a frame of reference. Without some form of evaluation everything about education becomes a matter of blindly hoping that all is well. Effective teaching, like effective experimentation, cannot take place without tools for determining the success of the endeavor. More effective use of evaluation will improve the teaching of music and the music curriculum at all levels.

According to Leonhard and House,[5] several functions of evaluation permeate all aspects of public school music education:

(1) Appraisal of pupil progress provides insight into the success of musical experiences and teaching techniques.

(2) Comprehensive evaluation provides the teacher and the student with needed information concerning choice of musical activities in and out of school and choice of music as a profession.

(3) Consistency between objectives and evaluation secures high levels of motivation; this directly affects the amount and direction of effort expended by students. Evaluation, when used for motivation, is more genuine than the mere giving of grades.

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[5]Charles Leonhard and Robert House, Foundations and Principles of Music Education, 2nd ed. (New York: McGraw-Hill Book Company, 1972), pp. 391-394.

(4) Evaluation contributes to improvement of instruction by enabling the teacher to identify strengths and weaknesses in methods of teaching and in instructional materials.

(5) Evaluation facilitates maintenance of standards which are flexible and adaptable to individual differences in abilities and goals.

Generally, evaluation in music is not well understood. What is often construed as evaluation on the basis of sound reasoning with the benefit of student participation is actually adjudication, which contains no student input. It is necessary to note that often the best measures of evaluation are those of self-analysis in which the student analyzes and prescribes.

Essentially, it is the underlying function of all attempts at evaluation to afford a basis of rational action. It is imperative that all music teachers develop a clear understanding of the evaluative process and that they be well informed about available evaluative procedures.

STATEMENT OF THE PROBLEM

The present status of evaluative techniques renders impossible the accurate evaluation of many of the results of the music education program.[6] A specific instance of evaluational neglect involves instrumental music programs at the elementary school (beginning) level. Much of what now passes for evaluation lacks careful comparison of student

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[6]Leonhard and House, Foundations and Principles of Music Education, pp. 416-417.

musical behaviors with models of high standards.

The problem (main concern) of this study is that the frequency and modes of student responses which demonstrate musical learning in the elementary instrumental music class are unclear.

Instrumental music performance, because of its very nature, is difficult to evaluate reliably.[7] Techniques and procedures vary, but in a great many cases it is to be feared that they are rather haphazard. The teacher-student interaction in private lessons is filled with evaluation. However, class instruction greatly complicates the task of the teacher of promoting individual learning and evaluation.

Too often the music teacher thinks of evaluation as a means of motivating students by giving grades.[8] Grades are a post mortem act; they provide no feedback that can be used in continuous assessment of progress in teaching and learning. Because of this instrumental music has, in many instances, been considered an easy mark for students who participate.

It is the opinion of the author that some advances must be made toward more definitive evaluation practices in elementary school instrumental music if instrumental programs are to be justified in terms of improved teaching procedures

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[7]William E. Whybrew, Measurement and Evaluation in Music (Dubuque, Iowa: Wm. C. Brown Company, Inc., 1962), pp. 164-165.

[8]Richard J. Colwell, The Teaching of Instrumental Music (New York: Appleton-Century-Crofts, 1969), p. 23.

and valid content. There is a need to obtain more support for instrumental music programs in the public schools, and this can be accomplished through gaining more knowledge about effective teaching practices. Although systematic evaluation has traditionally been neglected by music teachers, thoughtful application of evaluation can contribute to better music programs in the schools and, in time, to a more musically literate public.[9]

SCOPE OF THE STUDY

Learning to play an instrument proceeds with greatest effectiveness when the student periodically is provided with clear knowledge of progress made toward his goal.[10] In view of this statement, the success of the instrumental music program in a particular school depends to a large extent upon the ability of the teacher to evaluate student progress.

Although some excellent published evaluative tools are available for appraising some aspects of instrumental performance, several gaps remain. As a result, the music teacher must frequently construct methods of evaluation to provide a more complete picture of the musical learning which

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[9]Colwell, The Evaluation of Music Teaching and Learning, p. viii.

[10]Louis Thorpe, "Learning Theory and Music Teaching," Basic Concepts in Music Education, in Fifty-seventh Yearbook of the National Society for the Study of Education, (Chicago: University of Chicago Press, 1958), p. 192.

is occurring.

Therefore, the author proposes an exploratory, descriptive study which will consist of observation and documentation of behaviors in beginning instrumental music classes in the Dexter, Michigan and Saline, Michigan public schools. Specifically, the author will record the number of times in each class that a teacher elicits modes of student response which demonstrate musical learning. Also, the author will classify these modes of student response.

REVIEW OF RELATED LITERATURE

A study by Noble[11] (1971) reveals several inconsistencies in methods currently employed to teach elementary instrumental music. He states that in beginning classes, a number of students do not see the major goals of their instruction. Some students see musical learning as a series of unrelated specifics; this is due either to inadequate teacher methods or to insufficient student insight. He implemented a conceptual approach to teaching the first twelve weeks of instrumental music, and he discusses the advantages of this in terms of greater program definition.

Nelson[12] (1970), in response to what he perceived to

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[11]Robert F. Noble, "Effects of a Concept Teaching Curriculum on Performance Achievement in Elementary School Beginning Bands," Journal of Research in Music Education, 19:2 (Summer 1971), 209-215.

[12]John C. Nelson, "A Comparison of Two Methods of Measuring Achievement in Sight Singing" (Ph.D. dissertation, The University of Iowa, 1970), pp. 14-49.

be significant neglect of the evaluation process in sightsinging, compared two methods of measuring achievement in sightsinging. He states that evaluation of progress is an essential ingredient of good teaching; without it, instruction becomes meaningless. With respect to musical performance, any attempt to evaluate such behavior is actually an attempt to select some representative behaviors for consideration.

Oliver[13] (1979) states that evaluation is basically an educational tool and, when properly used, can improve almost any aspect of the teaching-learning situation. In order to acquire many pieces of specific knowledge helpful in evaluation, she advocates the use of as many different relevant behaviors as possible in the evaluation process.

A study by Martin[14] (1971) deals with the lack of definition of course content and identifiable behaviors representing achievement in beginning band programs. He evaluated beginning band students to reveal differences among their commands of knowledge related to learnings described in behavioral objectives. He contends that instrumental music courses can be defined in terms of behaviors that demonstrate cognitive learnings. He states that effective evaluation enables the student to understand better the nature of his own progress in relation to the

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[13]Ruth Oliver, "Evaluation: Why, What, How," Canadian Music Educator, 20:2 (Winter 1979), 40-48.

[14]Earl H. Martin. "The Construction and Validation of an Achievement Test in Beginning Band" (Ph.D. dissertation, The Florida State University, 1971), pp. iii-18.

objectives and also to understand the kind of comprehension, transfer, and problem solving he is expected to accomplish. In addition to aiding perpetuation of continuity in the study of an instrument by each student, effective evaluation is also useful in diagnosis of student problems.

PROPOSED METHOD OF STUDY

In this proposed study of behaviors in beginning instrumental music classes, the author will systematically observe teacher presentation of musical problems and the resultant behaviors of the students. The observations will occur once for the duration of one class period in each of as many different public elementary schools as possible in Dexter and Saline. The classes may be homogeneously or heterogeneously grouped.

During these observations, which will be recorded on audio cassettes for reference, the author will document the number of teacher-solicited as well as unsolicited occurrences of each particular mode of student response.

INSTRUMENT DEVELOPMENT

According to Schleuter,[15] an important objective of

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[15]Stanley L. Schleuter, "An Investigation of the Interrelation of Personality Traits, Musical Aptitude and Musical Achievement" (Ph.D. dissertation, The University of Iowa, 1971), p. 3.

most sciences is to describe a variety of data and observations by placing them within a few basic categories. The author proposes to classify observed evaluation behaviors into basic categories as delineated in The Individualized Instructor Teaching Skills Workbook.[16] The basic categories in this publication represent several abilities necessary to skill development in instrumental performance. They include:

(1) Description: a verbal statement of the properties of a thing or its relations to other things serving to identify it.

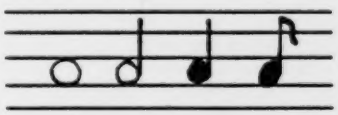
Example:
Teacher: "What was the melodic contour of that excerpt?"
Student: "The melody rose in stepwise motion."

(2) Identification: a verbal response to a question similar to "how many?"; location of something.

*This behavior is weak and tends to be much less significant than association.

Example:
Teacher: "How many beats does a half note receive in $\frac{2}{2}$ meter?"
Student: "Two."

Teacher: "Which of these notes is a quarter note?"



Student: Points to the quarter note.

(3) Imitation: the execution of an act supposedly as a direct response to the perception of another person performing the act; it may be oral,

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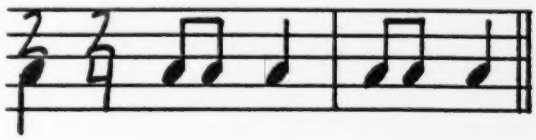
[16] James O. Froseth and Judith K. Delzell, The Individualized Instructor Teaching Skills Workbook (Chicago: G.I.A. Publications, Inc., 1981).

kinesthetic, or instrumental.

Example (oral):



Teacher: "Du de Du Du de Du"

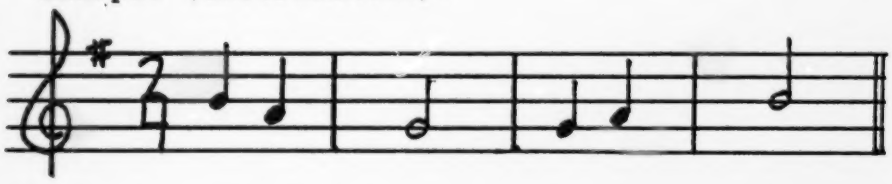
Student: Repeats the above exactly.

Example (kinesthetic):

Teacher: Lap-pats the tempo beats, hand-claps the meter beats.

Student: Repeats the above exactly.

Example (instrumental):



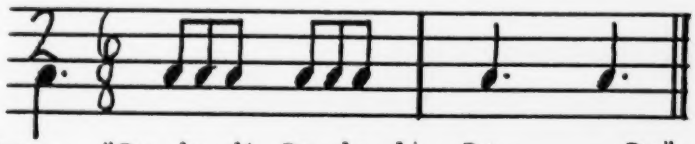
Teacher: Plays the above excerpt on alto saxophone.

Student: Repeats the above exactly.

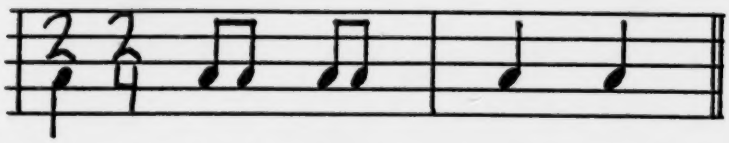
(4) Discrimination: the perception of a distinction or difference; it may be aural or visual.

*Imitation and discrimination are keys to evaluation. However, they must occur in a musical context; imitation outside a musical context has no discrimination.

Example (aural):



Teacher: "Du da di Du da di Du Du"



Teacher: "Du de Du de Du Du"

"Sing the pattern which sounds like duple meter."

Student: Repeats the above duple excerpt exactly.

Example (visual):

Teacher: Plays the above excerpts from the lesson book on alto saxophone.

"Play the pattern which looks like triple meter."

Student: Plays the above triple excerpt exactly on alto saxophone.

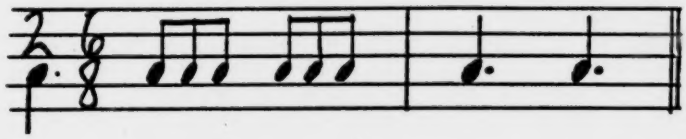
(5) Association: the formation of mental connections or bonds between sensations, perceptions, ideas, or feelings; it may be verbal, rhythmic, or melodic. It does not consist solely of naming, a verbal process.

Example (melodic):

Teacher: Plays the above excerpt on alto saxophone.

Student: Sings "Mi Re Do, Do Re Mi"

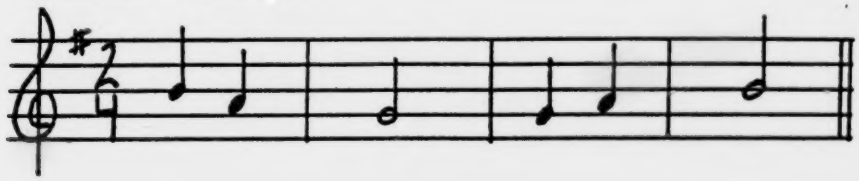
Example (rhythmic):



Teacher: Plays the above excerpt on alto saxophone.

Student: Sings "Du da di Du da di Du Du"

Example (verbal):



Teacher: Plays the above excerpt on alto saxophone.

Student: Sings "Notes step down,
Notes step up"

(6) Analyzation: a detailed examination of anything complex made in order to understand its nature or to determine its essential features; it is visual and is achieved through association.

Example:
Teacher: "What is the form of 'All Through the Night'?"

Student: "A A B A"

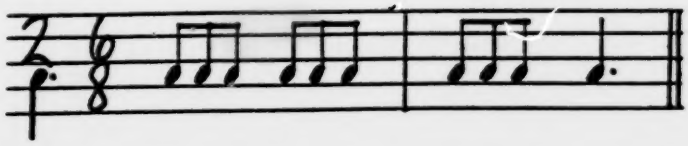
(7) Generalization: a response made to a stimulus similar to but not identical with a reference stimulus; it may be verbal, kinesthetic, or instrumental.

*Analyzation and generalization are two of the highest levels of musical behavior; both separate the effects of training from those of education.

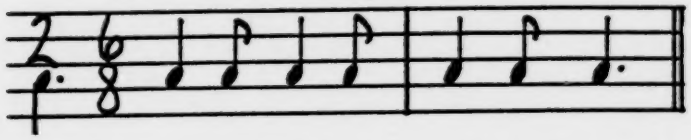
Example (verbal):
Teacher: Sings "Mi Re Do, Do Re Mi,
Mi Mi Mi Mi, Re Mi Do"

Student: Sings "Mi Re Do, Do Re Mi,
Do Do Re Re, Mi Re Do"

Example (kinesthetic):

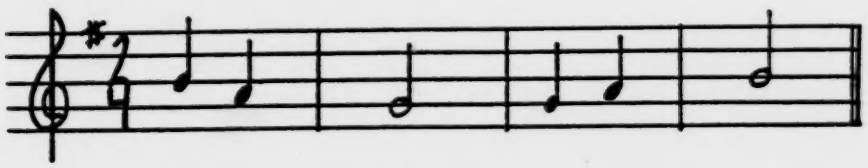


Teacher: Lap-pats the tempo beats, hand-claps the meter beats.

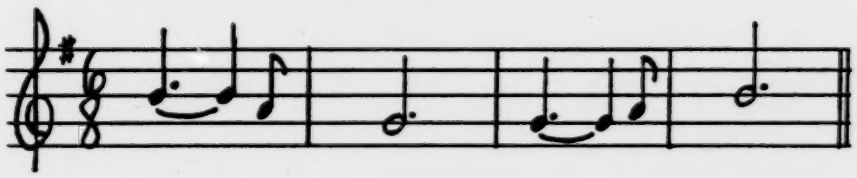


Student: Lap-pats the tempo beats, hand-claps the meter beats.

Example (instrumental):



Teacher: Plays the above excerpt on alto saxophone.



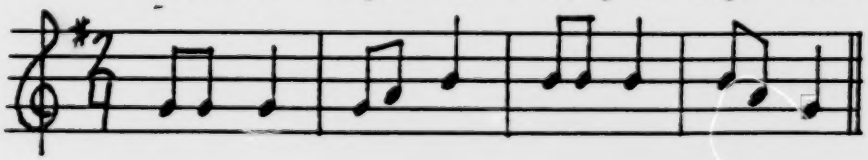
Student: Plays the above excerpt on alto saxophone.

(8) Synthesis: the composition or combination of parts or elements so as to form a whole; it results from combination of analyzation and generalization.

*This is the highest level of musical behavior.

Example:

Teacher: "Improvise a song in duple meter."



Student: Plays the above song on alto saxophone.

PROCEDURE

The author was fortunate to gain access to a wide range of beginning band situations in Dexter and Saline. Specifically, the author observed nine beginning band classes in two schools. The student population for each class was different each time, and the nine classes were taught by a total of five teachers. Classes of teachers A, B, C, and D were observed twice and a class of teacher E was observed once.

To facilitate documentation of student responses the author developed an instrument (see Appendix) which includes each of the eight behaviors and their subdivisions (where applicable) as defined and exemplified in PROPOSED METHOD OF STUDY.

During the course of each observation, the author tallied a single occurrence or an uninterrupted series of occurrences of each behavior with an appropriate mark.

> Example: A student answer to a description, identification, analyzation, or synthesis exercise was tallied as one occurrence of the appropriate behavior. Student answers to series of imitation, discrimination, association, or generalization exercises were also tallied as one occurrence of the appropriate behavior when the series was not interrupted by teacher verbalization aimed at altering the initial desired response.

It also must be noted that a single student response and group student responses each were tallied as one occurrence of the particular behavior; teachers in all of the observed classes elicited single student responses and group student responses frequently.

To gain greater consistency with respect to definition and categorization, each class was recorded on audio cassette. The author referred to the cassettes after each class to clarify the types and frequencies of behaviors which occurred during the course of the actual observation.

To provide further insight into the similarities and differences between the beginning band classes which were observed, a short synopsis of each of the nine observations follows. Specific data for each observation are presented in figures 1 through 9.

Observation 1:

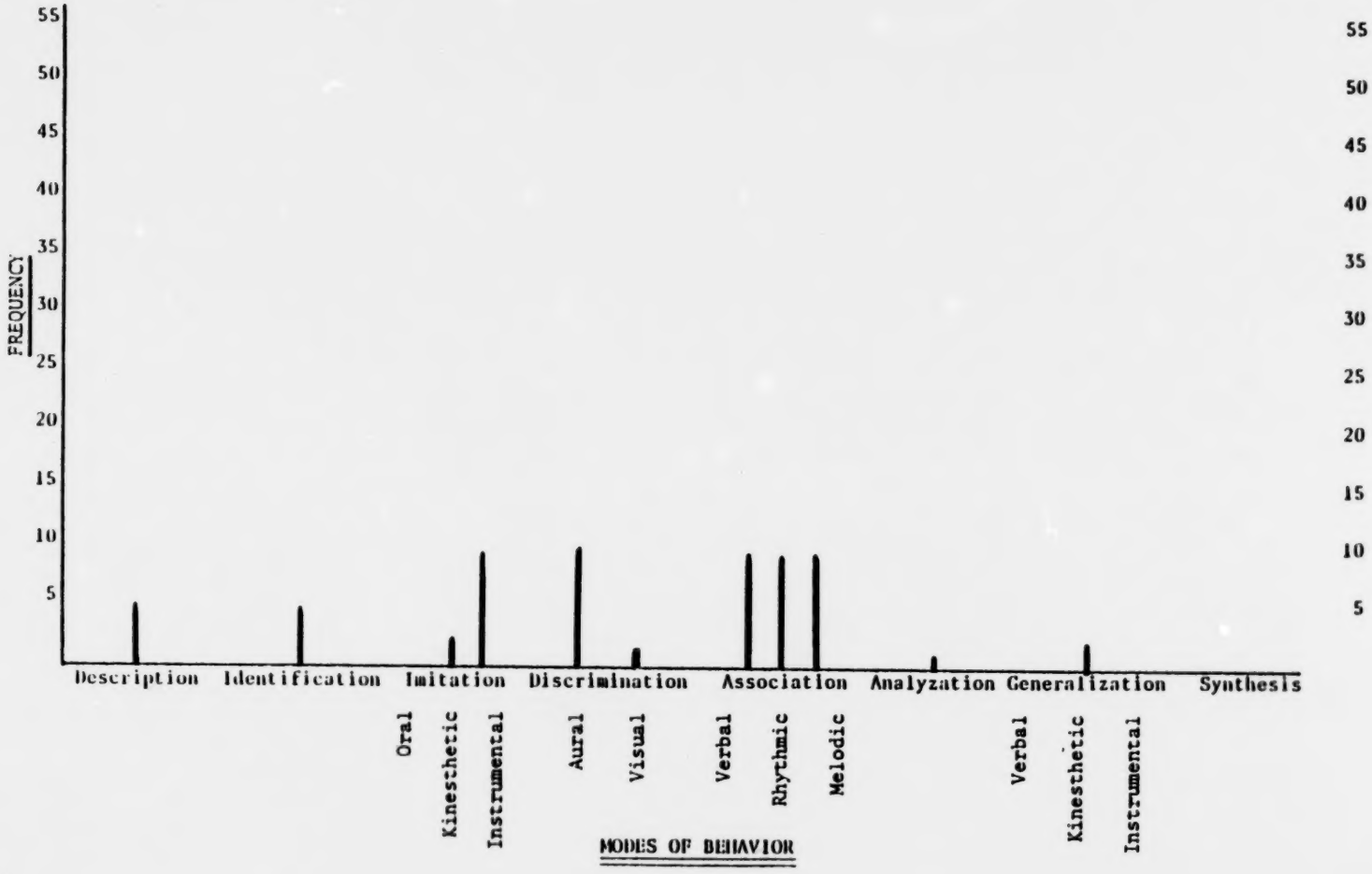
Grade: 5 Teacher: A

Instrumentation: 10 flutes
2 oboes
16 trumpets
6 percussion

This particular group was a combination of three smaller groups; they were combined in preparation for an upcoming concert. Sessions in Sound by Barbara Buehlman and Ken Whitcomb was the source of materials for the lesson. The group rehearsed a selection entitled "Lightly Latin," and the teacher employed several teaching strategies in this endeavor. They included:

FIGURE 1

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 1



(1) Hand signals: The teacher guided the trumpets by using hand signals which were associated with the pitch of each note.

(2) "Clap it, tap it, say it": When the students encountered difficulty playing parts of "Lightly Latin," the teacher asked them to clap the rhythm, to clap the rhythm while foot tapping the tempo beat, and to say the rhythm on a neutral syllable while clapping and tapping.

(3) Foot tapping: The teacher urged the students to be aware of the upward motion as well as of the downward motion involved in foot tapping.

(4) Aural/visual association: The teacher asked each trumpet student to finger F and then F#; the students then played each note.

Observation 2:

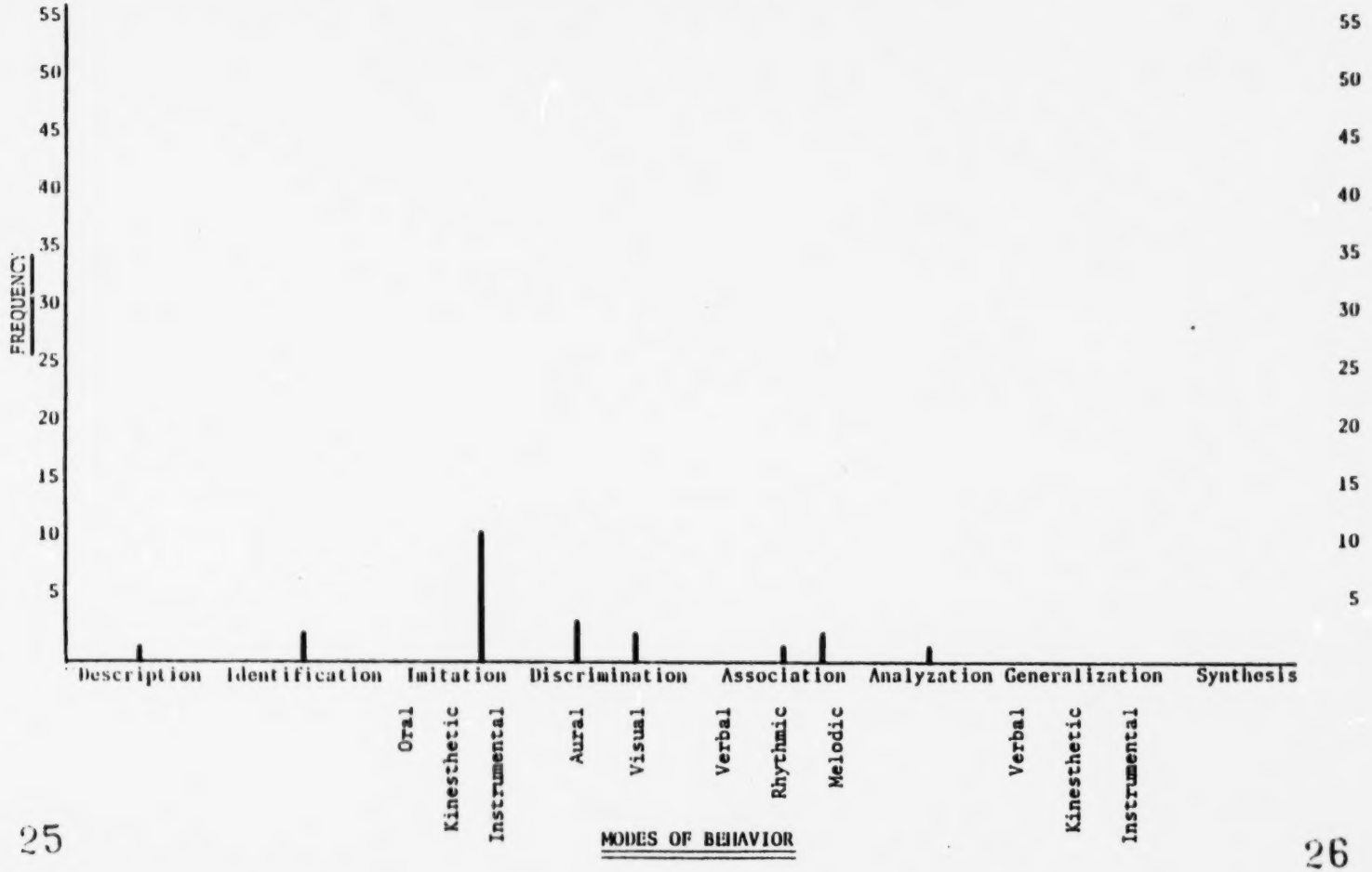
Grade: 5 Teacher: B

Instrumentation:
10 flutes
2 oboes
30 clarinets
10 alto saxophones
16 trumpets
8 trombones
6 percussion

This group was the largest of the study; it was composed of several smaller groups in an effort to facilitate preparation for an upcoming concert. Sessions in Sound again was the source of materials for this lesson; the band rehearsed nine selections, and during each one a different

FIGURE 2

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 2



section or combination of sections of the band was featured. Teaching strategies employed included:

(1) Featuring: The members of each section to be featured in a particular piece played their parts unaccompanied to enable the other members of the ensemble to develop expectations for listening.

(2) Association: When the students encountered difficulty with the last two measures of "Lightly Row," the teacher sang them to provide an aural model. The teacher repeated this process with the beginning measures of "Yankee Doodle."

(3) Foot tapping: The teacher urged each student to foot tap to lend greater rhythmic unity to the ensemble.

Observation 3:

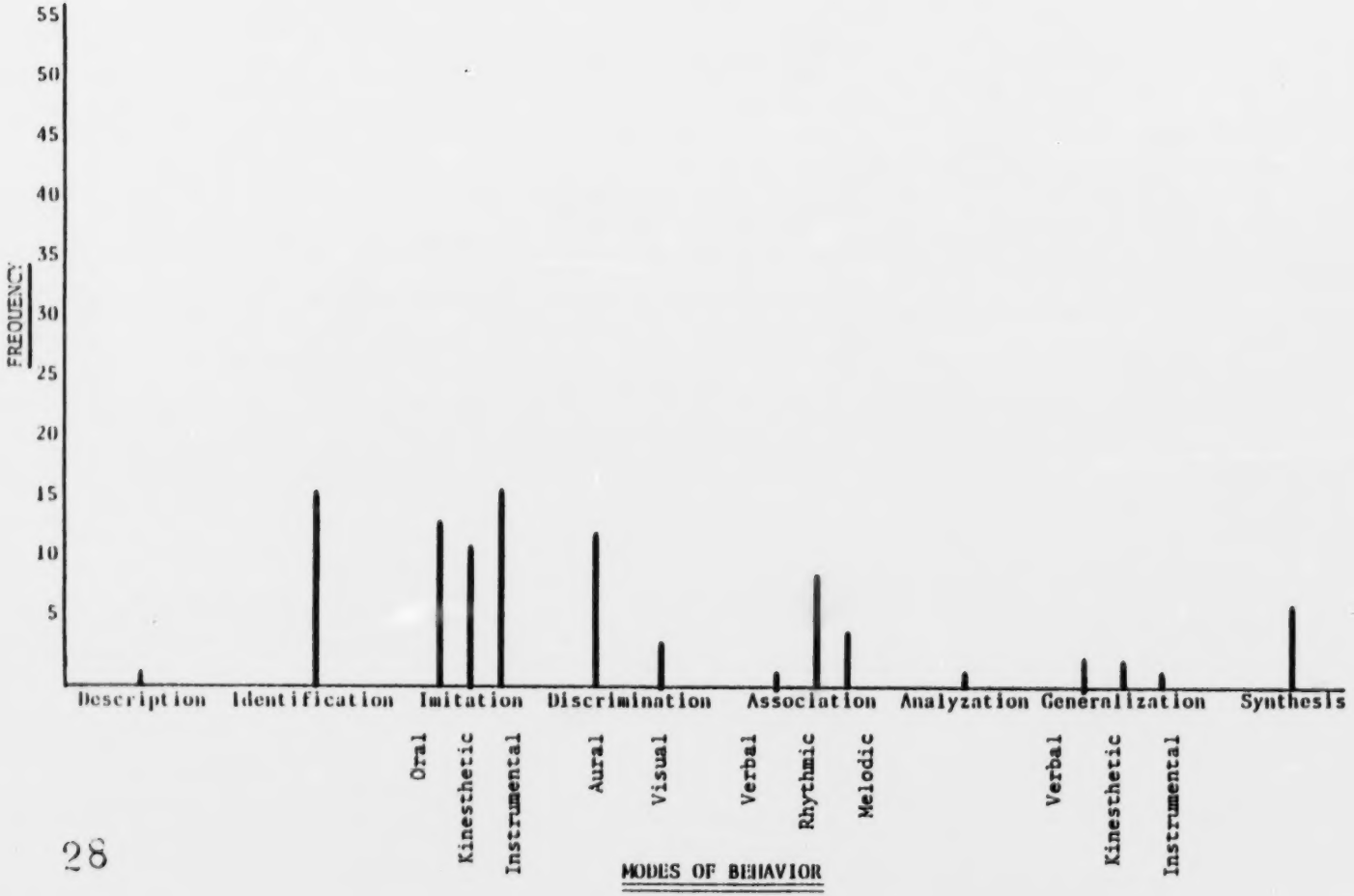
Grade: 5 Teacher: C

Instrumentation: 12 clarinets
1 French horn
5 trumpets
1 trombone

The Individualized Instructor (Book 1) by James O. Froseth was the source of materials for this lesson. The teacher employed several teaching strategies to elicit a variety of musical behaviors which provided a wealth of information about individuals and about the class as a whole. The teacher used much singing and movement to introduce "Go Tell Aunt Rhody" to the class. The use of "special songs" in which students performed songs of their choice enabled them

FIGURE 3

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 3



to demonstrate the more sophisticated musical behaviors of generalization and synthesis. The teacher invited student self-assessment frequently during the class and made liberal use of positive reinforcement.

Observation 4:

Grade: 5 Teacher: C

Instrumentation: 11 clarinets

This particular lesson was devoted to assessment. Each student selected a project of his choice from The Individualized Instructor (Book 1) and played it as a solo for the class. Then the entire group played it; this technique elicited imitation/discrimination behaviors.

Observation 5:

Grade: 5 Teacher: D

Instrumentation: 8 trumpets
2 trombones
2 euphoniums

The teacher elicited imitation behaviors in the form of lip slurs and 4-beat rhythmic patterns as a warm-up for this brass group. The following pieces from The Individualized Instructor (Book 1) were used in this lesson:

"Go Tell Aunt Rhody"
Rounds 7 and 7-A
Rounds 6 and 6-A
"Baa, Baa, Black Sheep"
"Are You Sleeping?"

For the introduction of these pieces, the teacher elicited instrumental imitation by playing each one and then

FIGURE 4

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 4

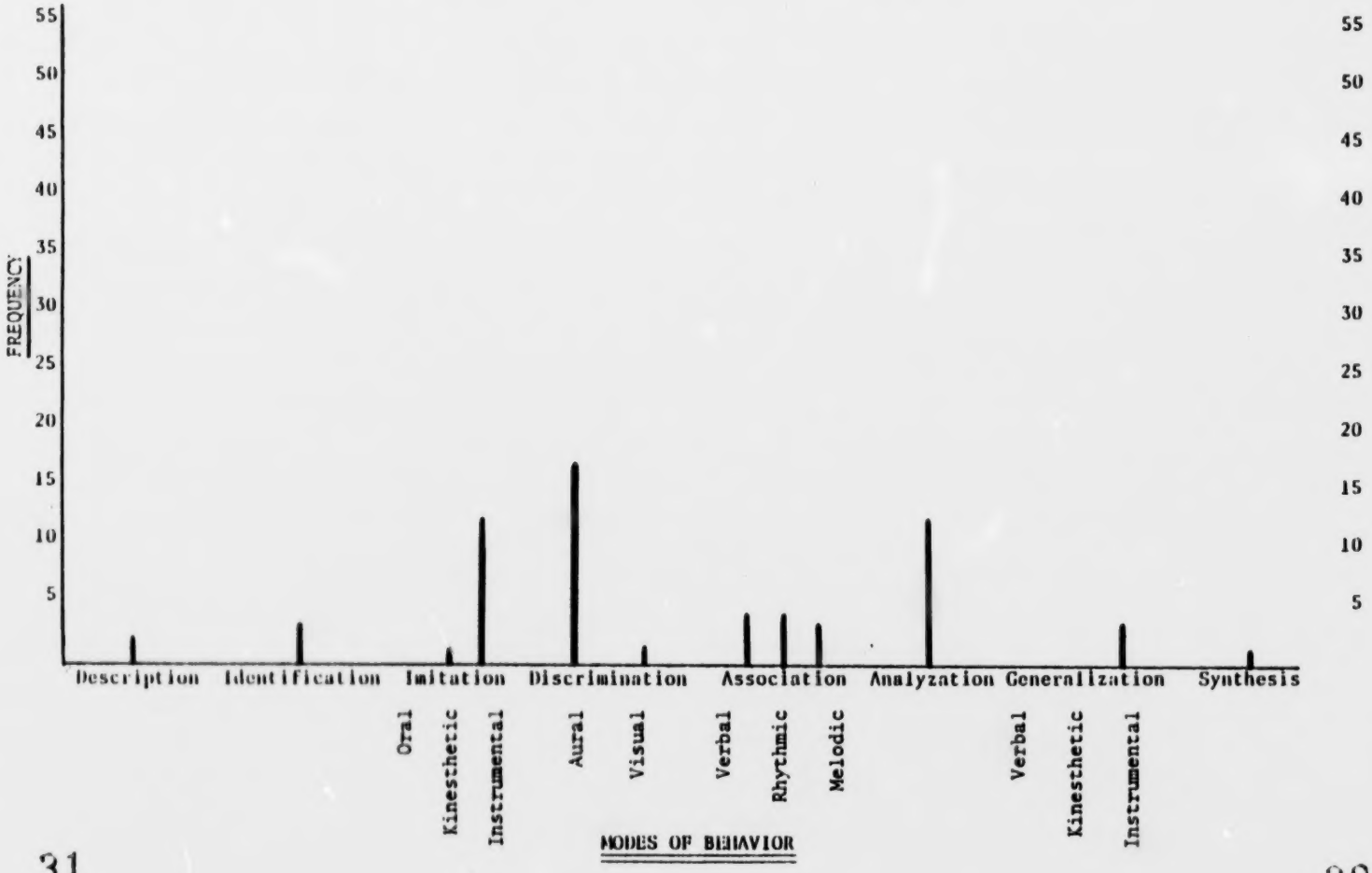
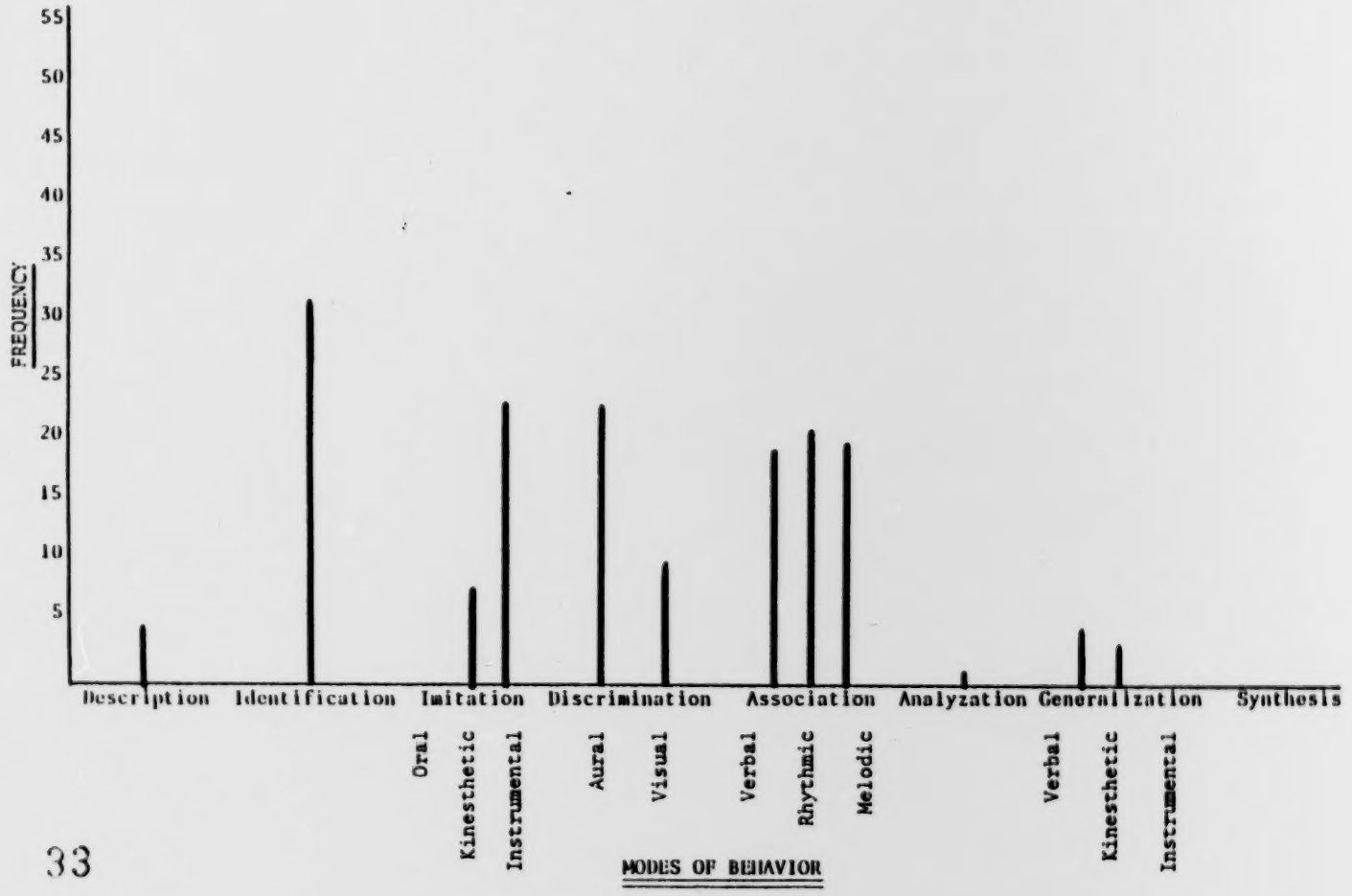


FIGURE 5

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 5



asking the students to play it. This technique also reinforced aural/visual discrimination. In addition, the teacher utilized verbal and rhythmic association. The students were asked to sing the words to the songs and to chant selected rhythmic patterns appropriate to each piece. These rhythmic patterns are provided with each song in the book and may be used in chains, as ostinati, or in a variety of ways limited only by the creativity of the teacher.

Observation 6:

Grade: 5 Teacher: A

Instrumentation: 14 trumpets

This particular lesson was devoted to assessment; sessions 10, 12, 14, and 16 from Sessions in Sound were used. Frequently the teacher demonstrated fingerings and hand positions which the students imitated. Session 10, in $\frac{5}{4}$ meter, was a source of rhythmic difficulty for most of the students. The teacher presented Session 12 in a manner which involved association behaviors: students clapped tempo beats as the teacher played, and they subsequently fingered their trumpets silently as the teacher played. Sessions 14 and 16 were presented as special challenges; any student who could play either of these exercises well received a highly satisfactory rating.

Observation 7:

Grade: 5 Teacher: B

FIGURE 6

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 6

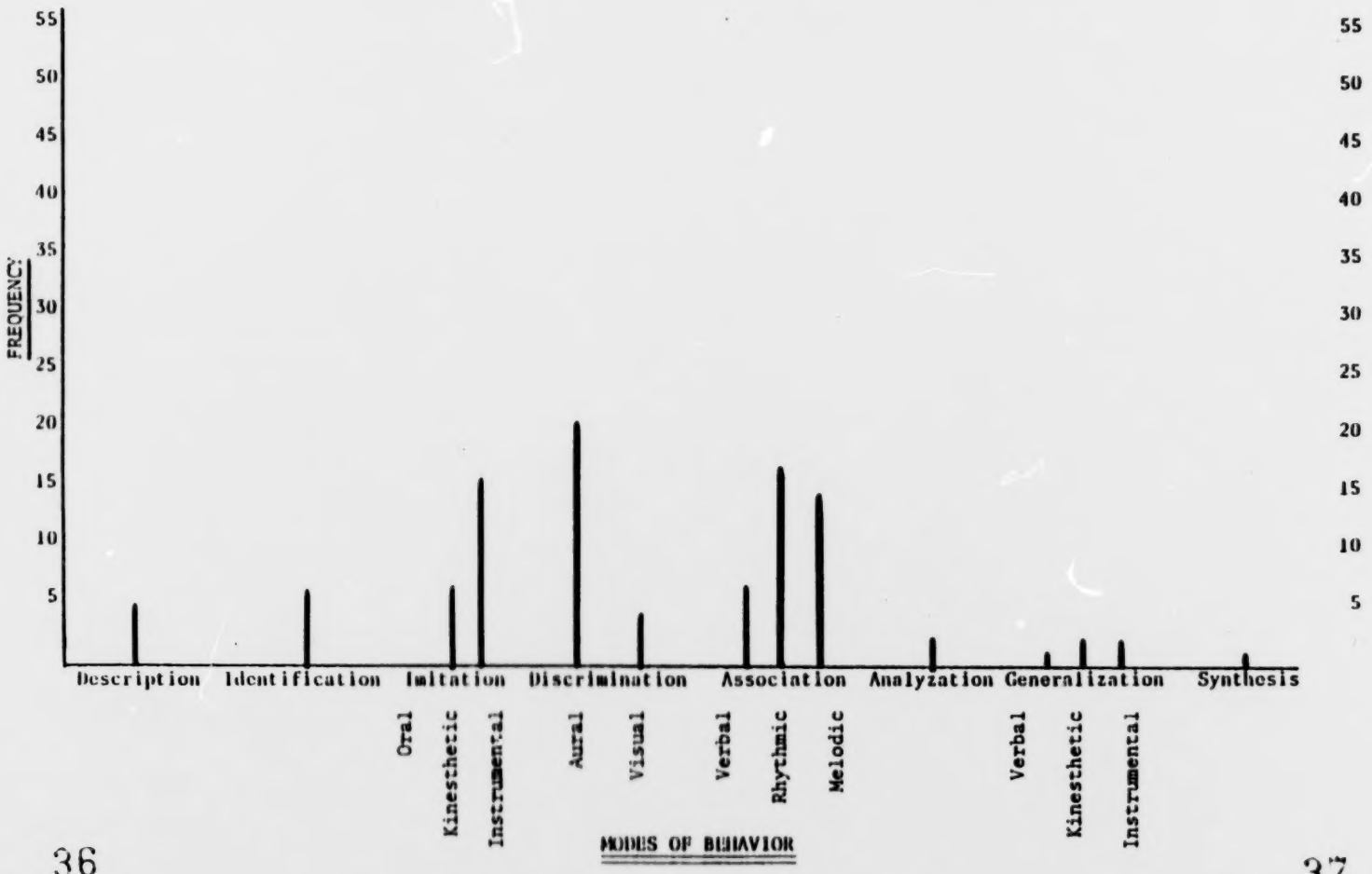
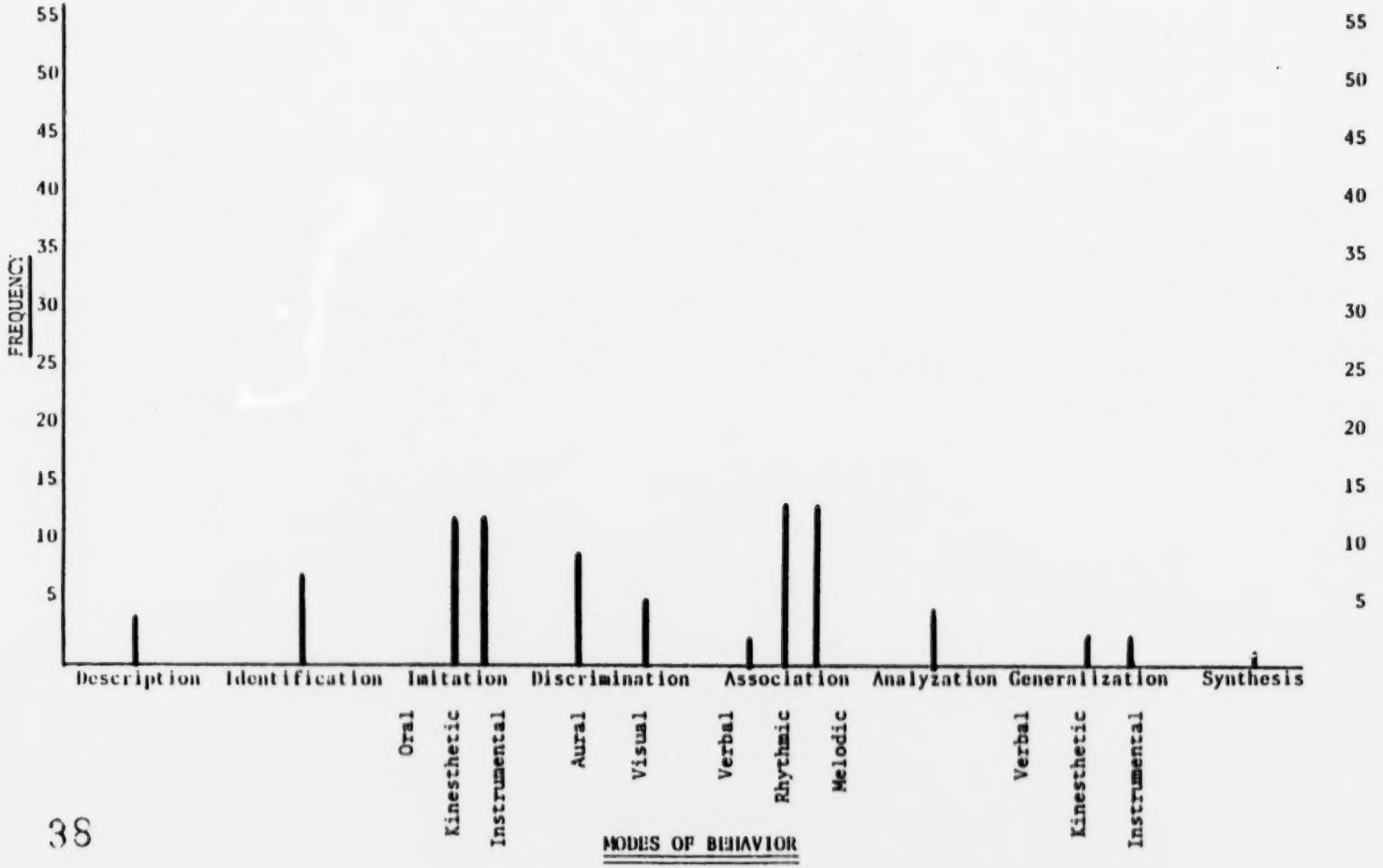


FIGURE 7

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 7



Instrumentation: 7 alto saxophones

Sessions 13 and 14 from Sessions in Sound were used as assessment materials in this lesson. The teacher elicited kinesthetic rhythmic association by singing rhythm patterns in these exercises and asking students to clap them. The teacher also asked each student to "clap, tap, and say" each session before playing it.

Observation 8:

Grade: 5 Teacher: E

Instrumentation: 4 flutes
1 alto saxophone

Each student played a project from The Individualized Instructor (Book 1), and then all members of the class played the same project as an ensemble to strengthen imitation and discrimination abilities. In this particular class the teacher elicited aural discrimination and generalization behaviors by playing more than one piano accompaniment for "Are You Sleeping?" and "Lightly Row." Each student selected one of these tunes to play twice. As each student played his selection twice, the teacher provided piano accompaniments which varied in tempo, texture, complexity, and/or style for each performance. Each student was then expected to analyze the different accompaniments for similarities and differences and to express likes and dislikes.

Observation 9:

Grade: 5 Teacher: D

FIGURE 8

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 8

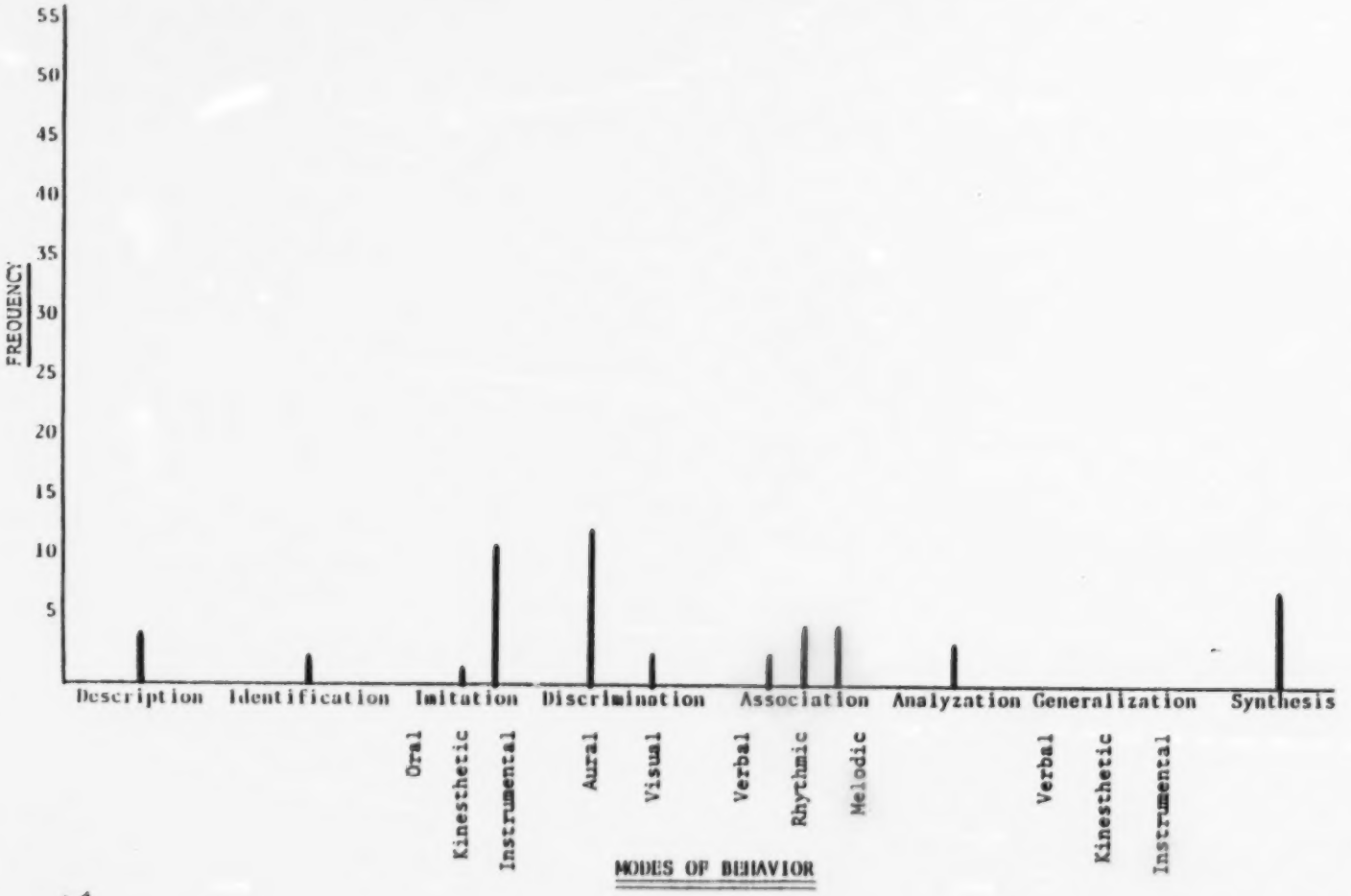
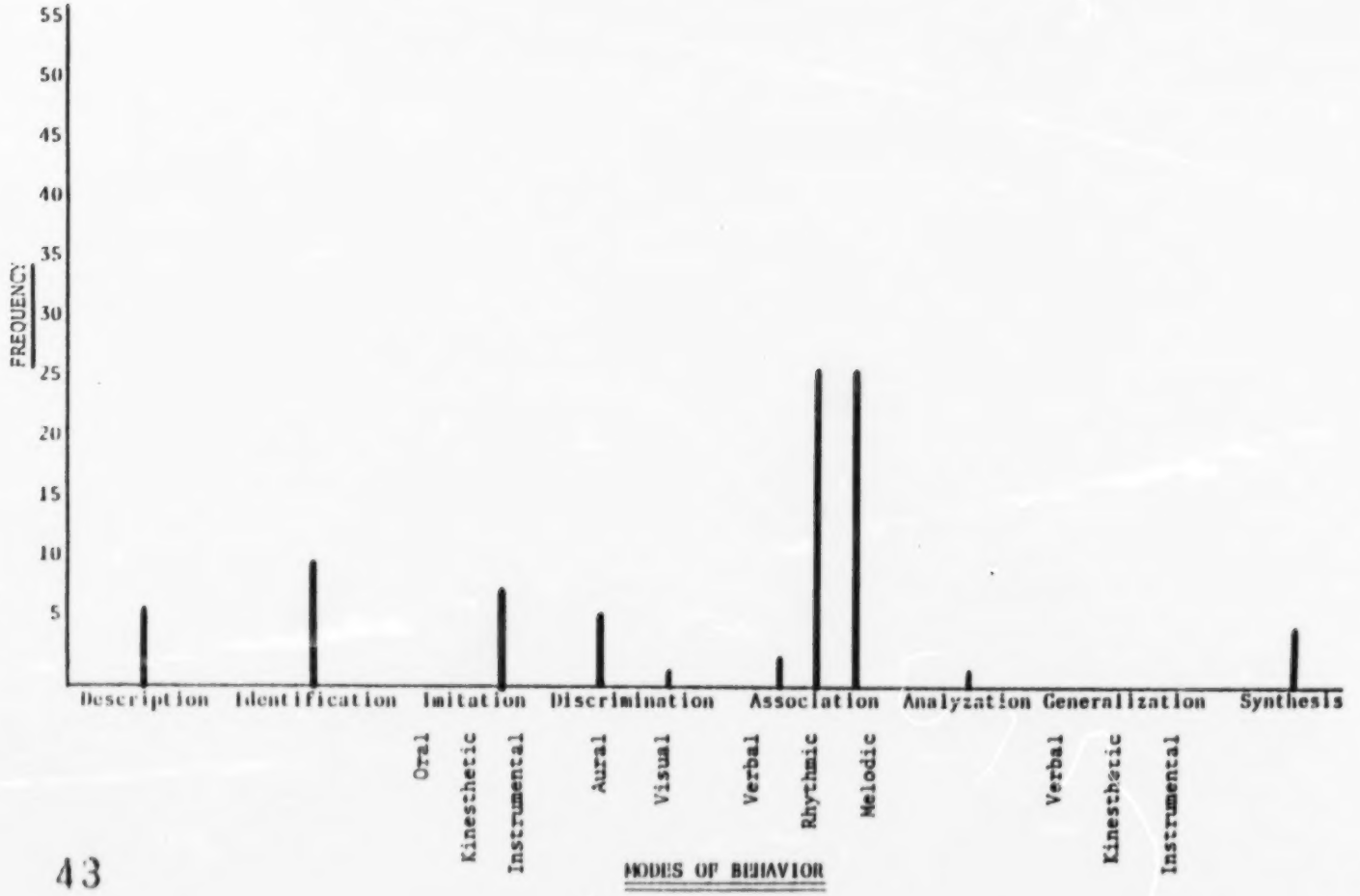


FIGURE 9

FREQUENCIES OF MODES OF RESPONSE IN OBSERVATION 9



Instrumentation: 1 French horn
6 trumpets
1 trombone

The teacher began this lesson by eliciting instrumental imitation of melodic patterns from materials in The Individualized Instructor (Book 1). For assessment purposes, the students then played selections of their choice and rounds chosen by the teacher.

RESULTS

Examination of the frequency distribution of behaviors (table 1) reveals that some modes of response were much more prevalent than others in the beginning instrumental classes observed. Description, analyzation, generalization, and synthesis occurred 27, 25, 26, and 20 times respectively; the sum of these particular occurrences comprises approximately 13.99% of the total behaviors documented (table 2). Identification occurrences account for approximately 10.83% of this total.

The three forms of imitation behavior together equal approximately 22.65% of the overall total of behaviors. However, instrumental imitation outweighs kinesthetic and oral forms with 109 documented compared to 37 and 13 respectively. Also, the 13 oral imitation behaviors occurred during Observation 3 and at no other time during the study.

Discrimination behaviors comprise approximately

TABLE 1

FREQUENCY DISTRIBUTION OF RESPONSES PER OBSERVATION

Modes of Response	Obs. 1	Obs. 2	Obs. 3	Obs. 4	Obs. 5	Obs. 6	Obs. 7	Obs. 8	Obs. 9	Total
Description	4	1	1	2	4	4	3	3	5	27
Identification	4	2	14	3	31	5	6	2	9	76
Imitation Oral	0	0	13	0	0	0	0	0	0	13
Imitation Kinesthetic	2	0	10	1	7	5	11	1	0	37
Imitation Instrumental	8	9	16	11	22	15	11	10	7	109
Imitation Total	10	9	39	12	29	20	22	11	7	159
Discrimination Aural	8	6	11	16	22	20	8	11	5	107
Discrimination Visual	1	4	3	1	9	4	4	2	1	29
Discrimination Total	9	10	14	17	31	24	12	13	6	136
Association Verbal	8	0	1	4	17	6	2	2	2	42
Association Rhythmic	8	2	8	4	20	16	12	4	25	99
Association Melodic	8	4	4	3	18	14	12	4	25	92
Association Total	24	6	13	11	55	36	26	10	52	233
Analyzation	1	1	1	11	1	2	4	3	1	25
Generalization Verbal	0	0	2	0	4	1	0	0	0	7
Generalization Kinesthetic	2	0	2	0	3	2	2	0	0	11
Generalization Instrumental	0	0	1	3	0	2	2	0	0	8
Generalization Total	2	0	5	3	7	5	4	0	0	26
Synthesis	0	0	6	1	0	1	1	7	4	20

TABLE 2

FREQUENCY DISTRIBUTION OF RESPONSES BY PERCENTAGE

Modes of Response	Subdivision	Total
Description		3.85%
Identification		10.83%
Imitation--Oral	1.85%	
Imitation--Kinesthetic	5.27%	
Imitation--Instrumental	15.53%	
Imitation--Total		22.65%
Discrimination--Aural	15.24%	
Discrimination--Visual	4.13%	
Discrimination--Total		19.37%
Association--Verbal	5.98%	
Association--Rhythmic	14.10%	
Association--Melodic	13.11%	
Association--Total		33.19%
Analyzation		3.56%
Generalization--Verbal	0.99%	
Generalization--Kinesthetic	1.57%	
Generalization--Instrumental	1.14%	
Generalization--Total		3.70%
Synthesis		2.85%

19.37% of the overall total, and aural discrimination was more prominent than visual discrimination. Aural discrimination occurred at least 5 times but not more than 22 times in each observation for a total of 107; visual discrimination occurred at least 1 time but not more than 4 times in eight of the observations and 9 times in Observation 5 for a total of 29.

Association behaviors account for approximately 33.19% of the overall total; verbal association occurred less frequently than either the rhythmic or melodic types. Verbal association occurred from 0 to 8 times in eight of the sessions and 17 times in Observation 5 for a total of 42. Rhythmic association occurred from 2 to 25 times in each observation for a total of 99, and melodic association occurred from 3 to 25 times in each observation for a total of 92.

DISCUSSION

Association, imitation, and discrimination modes of response had the highest frequencies of occurrence. Identification occurred moderately, and description, generalization, analyzation, and synthesis modes of response had relatively low frequencies of occurrence.

It is the opinion of the author that imitation, discrimination, and association behaviors are most vital to success in instrumental music. These three modes of response

are integrally related: as defined previously, imitation and discrimination are keys to evaluation, and association may occur through variation of imitative models in imitation/discrimination exercises.

Imitation is useful in establishing concepts of musical material to be performed instrumentally. Tempo, meter, style of articulation, tonality, and dynamics can be indicated without unnecessary teacher verbalization. Rhythmic and melodic echoes facilitate development of ability to associate rhythmic and melodic syllables with the sound and feel of rhythmic and melodic patterns. In short, imitation exercises are excellent tools through which to build technique and aural skills.

Discrimination involves the ability to perceive aural and/or visual distinctions between imitative models. Students must have a good aural/visual model of what <u>should</u> happen in order to internalize that model.

Discrimination is an extension of imitation and also of association. For example, once a kinesthetic feeling of underlying meter is developed, discrimination skills aid in recognition of contrast between duple and triple meter. Discrimination is very important in assessing students' abilities to determine tonalities or meters of patterns or songs.

Discrimination is also essential to the development of improvisation skills. Improvisation involves higher musical behaviors such as analyzation and generalization;

discrimination ability is vital to successful development of these skills.

Association behaviors include a wide range of experiences which are vital to music learning--listening, moving (feeling), singing, and playing. The experiential nature of association may be presented in the following sequence:

(1) It "feels" like (move)

(2) It "sounds" like (listen)

(3) It "sounds" like (sing or play)

(4) It "looks" like (notate)

It is the opinion of the author that movement is a key musical skill which affects other types of musical learning; students should learn response to music before creation of music. The source of any problem which an instrumentalist may have may be found through observation of kinesthetic responses in imitation, discrimination, and association activities.

Development of verbal and visual association skills prepares students for rhythmic and melodic reading (patterns) and dictation. Verbal description of music notation, however, is no substitute for the experiences of association and should not be used in place of them. Association, as opposed to verbal description, would facilitate development of music reading skills through use of the following applications:

(1) Associate feel of consistent tempo and sound of rhythm syllables with music notation in varied meters.

(2) Associate feel of consistent tempo and sound of melodic rhythm syllables with music notation.

(3) Associate feel of duple and triple meters and the sound of rhythm syllables with music notation in duple and triple meters.

(4) Associate feel of consistent tempo, varied meters, and melodic rhythm syllables with music notation in varied meters.

Analyzation, generalization, and synthesis are recognized in this study as higher-level musical behaviors, but the frequency of occurrence of these modes of response was relatively low. This may seem rather atypical in view of the high frequencies of occurrence of imitation, discrimination, and association, all of which facilitate experiences in analyzation, generalization, and synthesis. The following factors may account for this discrepancy:

(1) The study was conducted near the end of the school year; teachers were trying to complete assessments amidst much juggling of the schedule to accomodate "end-of-the-year" school activities.

(2) The bands at both schools which participated in the study gave concerts or prepared for concerts during the course of the study; at times the emphases of the rehearsals were altered to meet the immediate needs of the ensembles.

(3) Scheduling considerations often resulted in the combination of several small-group lessons at one time; instruction became less individualized than normal.

SUMMARY AND CONCLUSIONS

In this study the author documented the frequencies and modes of student responses which demonstrate musical learning in an attempt to contribute to greater definition of

evaluation practices and effective teaching practices in elementary instrumental music.

The author concludes that imitation, discrimination, and association are the principal behavior categories of the eight delineated in this study. These responses, when elicited in instrumental music in a variety of ways such as those discussed in this paper, offer abundant opportunities for description and identification behaviors to occur within them. Also, students who exhibit competencies in these three response modes are ready for successful experiences in analyzation, generalization, and synthesis, the highest levels of musical behavior.

These three response modes should be integral components of any beginning instrumental music class. They provide for development of solid skill foundations, and success with activities of these types should enable students to respond in any of the modes delineated in this study. Together, these three modes of response constitute built-in evaluation--ability to imitate, discriminate, and associate verbal, rhythmic, and melodic patterns reinforces understanding of concepts basic to instrumental music. The feedback from these student behaviors can help to make evaluation a more spontaneous, naturally occurring part of each class.

IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Teacher effectiveness is a key to classroom success; therefore, teachers need to be concerned with structuring their classes for specific student learning situations. Well-defined objectives and goals and well-implemented teaching strategies will result in solid instrumental music programs. In this particular study, similar teaching strategies (as described in the synopses of observations) elicited a wide range of behaviors indicative of music learning.

Instrumental music classes should be defined in terms of behaviors that demonstrate cognition. If teachers regularly incorporate the eight modes of response in this study into instruction at the elementary level, students will understand better the nature of their own progress in relation to the objectives. Teachers will have increased behavioral feedback from which to assess students and from which to improve instruction for the students.

Most educators know that although one may have knowledge of a subject, this does not guarantee necessarily that one has the ability to transfer that knowledge. In view of this statement, more research should be conducted in classroom settings by capable music teachers. Many teachers conduct research daily, but they may not regard their efforts as having research characteristics of formal design and implementation. However, results and conclusions derived from the course of daily contact with beginning instrumentalists are of immediate value to the teacher,

who should examine the findings in the light of perceived problems and make appropriate changes in instructional procedures. In a study such as that discussed in this paper, a broader perception of teaching and learning behaviors is afforded through the grass-roots experiences of music teachers.

APPENDIX

RESPONSE CATEGORIZATION AND DOCUMENTATION SHEET

SCHOOL:														DATE:
CLASS INSTRUMENTATION:														TIME:
	MODES OF STUDENT BEHAVIOR													
	Description	Identification	Imitation			Discrimination		Association			Analysation	Generalization			Synthesis
			oral	kinesthetic	instrumental	audio	visual	verbal	rhythmic	melodic		verbal	kinesthetic	instrumental	
TEACHER-SOLICITED															
UNSOLICITED															

ANNOTATED BIBLIOGRAPHY

Articles: Evaluation in Music Education

Colwell, Richard J. "Musical Achievement: Difficulties and Directions in Evaluation." Music Educators Journal, 57 (April 1971), 41-43+.

In this excellent, in-depth article, the author states a very compelling case for the use of research and evaluation to improve music teaching and music curricula at all levels. He traces the status of evaluation from the 1950s to the early 1970s.

Gutsch, Kenneth U. "Evaluation in Instrumental Music Performance: An Individual Approach." Council for Research in Music Education, 4 (Winter 1965), 21-29.

Through this study, the author sought to determine (1) if an evaluative tool could be developed which would measure an individual's instrumental music achievement while sight-reading rhythms and (2) whether or not such a tool, if it could be developed, could differentiate degrees of attainment for individuals who represented different amounts of instrumental music experience and reflected a variety of age levels.

Noble, Robert F. "Effects of a Concept Teaching Curriculum on Performance Achievement in Elementary School Beginning Bands." Journal of Research in Music Education, 19:2 (Summer 1971), 209-215.

The research upon which this article is based was aimed at using experimental methods to discover the values of conceptual approaches to teaching the first twelve weeks of beginning instrumental music. The author states several inconsistencies in current methods employed to teach instrumental music at this level.

Oliver, Ruth. "Evaluation: Why, What, How." Canadian Music Educator, 20:2 (Winter 1979), 40-48.

The author states that it is a proven fact that children who feel they are achieving and who feel they are receiving recognition for their achievements learn better. She lists activities under four headings (performance, listening, literacy, and creativity) which can be incorporated into the daily teaching program, and which will give some indication of student learning and/or needs.

Thorpe, Louis. "Learning Theory and Music Teaching." Concepts in Music Education, in Fifty-seventh Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1958.

The author discusses relations between learning theory and problems in teaching music. A most useful portion of this article deals with systematic evaluation of pupil progress.

Books: Evaluation in Education

Bloom, Benjamin S., ed. Taxonomy of Educational Objectives. New York: David McKay Company, Inc., 1956.

The author presents a very comprehensive definition of evaluation; he identifies it as an end process in dealing with cognitive behaviors and also as a major link with the affective behaviors.

Bruner, Jerome. Toward a Theory of Instruction. New York: W. W. Norton and Company, Inc., 1968.

In Chapter 2, the author discusses education as social invention. He concludes that educational experiment, in the main, has been and is being conducted without feedback in usable form. He advocates use of evaluation before and during curriculum construction in order to help the curriculum maker in choice of materials, approaches, and learning activities.

Hough, John B., and Duncan, James K. Teaching: Description and Analysis. Reading, Massachusetts: Addison-Wesley Co., 1970.

In Chapter 12 several techniques which teachers can use in evaluation of student learning are discussed and illustrated. The authors examine intent, action, feedback, and evaluation components of teaching in

an effort to clarify the place of evaluation in the highly sophisticated teaching process.

Ross, C. C. Measurement in Today's Schools. 2nd ed. New York: Prentice-Hall, Inc., 1947.

Chapter XVII involves discussion of problems and general principles of evaluation. The importance, efficiency, and difficulty of evaluation are explored with respect to elementary and secondary schools.

Thorndike, Robert L., and Hagen, Elizabeth. Measurement and Evaluation in Psychology and Education. 3rd ed. New York: John Wiley & Sons, Inc., 1969.

The Glossary contains a very comprehensive definition of evaluation. In Chapter 3, the authors make the distinction between evaluation and measurement; they identify and discuss four functions of evaluation procedures: motivation, diagnosis and instruction, defining teaching objectives, and differentiation and certification of students.

Woodruff, Asahel D. Basic Concepts of Teaching. Scranton, Pennsylvania: Chandler Publishing Co., 1961.

In his discussion of processes in the learning experience, the author identifies creative activity, critical thinking, and problem solving as special activities which can be cultivated and used for purposes of evaluation.

Books: Evaluation in Music Education

Colwell, Richard J. The Evaluation of Music Teaching and Learning. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.

This book is designed to set forth the principles of measurement and evaluation, and to relate these to the instructional processes in music. The purpose of the book is to show how evaluation, when properly used, can improve any kind of teaching-learning situation. Evaluation is discussed in terms of general principles as well as specific details; this encompasses a host of devices as they pertain to music teaching at all levels.

Colwell, Richard J. The Teaching of Instrumental Music. New York: Appleton-Century-Crofts, 1969.

Chapter 3 is an all-inclusive presentation of evaluation. The author discusses defining evaluation in music, evaluative tools, principles for evaluation, evaluating musical skills, and evaluating music as an activity and as an art.

Gordon, Edwin. The Psychology of Music Teaching. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971.

The evaluation of musical aptitude is discussed in Chapter Three, and the evaluation of musical achievement is discussed in Chapter Nine. These chapters contain information concerning standardized tests developed for these purposes.

Holz, Emil A., and Jacobi, Roger. Teaching Band Instruments to Beginners. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966.

Chapter 11 deals exclusively with evaluation and communication. Data-gathering, student self-evaluation, teacher self-evaluation, and communication problems are discussed and suggestions for applications specific to the beginning instrumental music classes are made.

Leonhard, Charles, and House, Robert. Foundations and Principles of Music Education. 2nd ed. New York: McGraw-Hill Book Company, 1972.

Chapter 11 is a comprehensive exploration of evaluation in music education. Subheadings include: evaluation defined, the uses of evaluation, the evaluation of students, and the evaluation of the music program. A summary presented at the end of the chapter is useful in pulling together ideas.

Regelski, Thomas A. Principles and Problems of Music Education. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.

The author defines evaluation and discusses it in relation to behavioral objectives. He states that the value in approaching instruction in music through behavioral objectives is inherent in the fact that they are learning activities with informal and ungraded evaluation built-in.

Whybrew, William E. Measurement and Evaluation in Music. Dubuque, Iowa: Wm. C. Brown Company, Inc., 1962.

In Chapter 1, the author identifies several needs for measurement and evaluation in music. Chapter 11 deals specifically with the evaluation of music performance. The author discusses the haphazardness of current techniques and procedures, and he suggests possible approaches to this dilemma.

Graduate Studies

Athnos, Gregory S. "Organization of the Wind Instrument Program in the Elementary School." M. Mus. thesis, The University of Michigan, 1963.

The purpose of this thesis was to develop an approach to the wind instrument program which (1) reflects current methods and (2) offers suggestions which the author feels would make the program more meaningful. The author discusses selection of teaching materials and the pros and cons of a "full band" method as opposed to a "small group lesson" method.

Boswell, Jacquelyn. "An Application of Bruner's Theory of Mental Growth to the Teaching of Musical Concepts in Beginning Instrumental Music." Ed.D. dissertation, The University of Illinois, 1969.

This study was concerned primarily with the formulation of teaching procedures by which the concepts that are basic to musical understanding could be taught systematically through beginning instrumental music. The author contends that association and discrimination behaviors are fundamental to learning music concepts.

Douglass, Joy A. "Music Achievement of Fourth-Grade Children." Ph.D. dissertation, The University of Michigan, 1977.

The purpose of this study was to evaluate the rhythmic movement method of teaching rhythm. In the data-gathering phase of the study, the author used the Iowa Tests of Music Literacy (standardized) and a rhythmic sight-reading test which involves association.

Lax, Maurice E. "A Study to Determine the Factors That Influence the Drop-Outs From the Instrumental Music Program in Moving From One School Level to Another in Selected Detroit Public Schools." Ed.D. dissertation, Wayne State University, 1966.

The purpose of this study was to identify some of the factors which influence students who are enrolled in the instrumental music classes of selected Detroit Public Schools to withdraw before graduation. The author perceived a need to obtain more support for instrumental music programs, and he approached this through research of recruitment practices, scheduling, and more effective teaching methods.

Martin, Earl H. "The Construction and Validation of an Achievement Test in the Beginning Band." Ph.D. dissertation, The Florida State University, 1971.

The purpose of this study was to alleviate the need for an achievement test in the beginning band program and to establish a method of defining the beginning band program in terms of cognitive behaviors used by instructors. The author contends that cognitive learnings about music and musical performance can be measured.

Nelson, John C. "A Comparison of Two Methods of Measuring Achievement in Sight Singing." Ph.D. dissertation, The University of Iowa, 1970.

The principle purpose of this investigation was to compare the relative effectiveness, reliability, convenience, and apparent validity of a long-item individually administered sight singing test with those same characteristics as related to a test comprised of short objective items. The author maintains that these tests, when used appropriately, can also give some indication of the progress made over a period of time in the skills of sight singing and music dictation.

Schleuter, Stanley L. "An Investigation of the Interrelation of Personality Traits, Musical Aptitude and Musical Achievement." Ph.D. dissertation, The University of Iowa, 1971.

The purpose of this study was to investigate the nature of the relationship of personality to overall musicality. The author proposed to ascertain the extent to which specific personality traits are associated with musical aptitude and musical achievement. He used several standardized tests to collect data on personality traits and musicality.

Workbook

Froseth, James O., and Delzell, Judith K. The Individualized Instructor Teaching Skills Workbook. Chicago: G.I.A. Publications, Inc., 1981.

This workbook is a step-by-step manual with models of teaching strategies designed to facilitate development of the following skills: instrumental performance, rhythm reading, solfége, verbal association, melodic dictation, pattern reading, kinesthetic feeling, improvisation, music writing, and assessment. The workbook emphasizes kinesthetic, aural, oral, and visual activities, and contains exercises for teachers to develop their own instructional sequences.